

Claims

What is claimed is:

1. A method for maintaining a password in a computer system equipped with an operating system for running a dedicated application, comprising:
  - generating a password in response to an occurrence of a prescribed password generation event;
  - providing the generated password to an operating system security module;
  - producing a coded password as a function of the generated password; and
  - storing the coded password for use in connection with a secure operating system login access.
2. The method of claim 1, wherein providing the generated password to the operating system security module further includes overwriting a previously generated password.
3. The method of claim 1, wherein storing the coded password further includes overwriting a previously stored coded password.
4. The method of claim 1, further comprising:
  - displaying the stored coded password during an operating system login, wherein the displayed coded password is subject to being decoded with the use of a corresponding secure password provider, further wherein the secure operating system login is responsive to an input of a correctly decoded coded password for enabling access to the operating system as a function of the generated password and the operating system security module.

1     5.     The method of claim 1, wherein the prescribed password generation event  
2 includes at least one selected from the group consisting of a computer system  
3 power-up; a computer system re-boot; expiration of a prescribed time duration from  
4 an immediately preceding password generation event; restoration of a security level  
5 from a modified security level to a default security level, and occurrence of a secure  
6 operating system login access.

1     6.     The method of claim 5, wherein the modified security level of a password  
2 generation event includes at least one selected from the group consisting of a  
3 change in the security level within the dedicated application, a security level override  
4 within the dedicated application, and a one-shot security access within the dedicated  
5 application.

1     7.     The method of claim 1, further comprising:  
2         searching a username registry of the dedicated application upon the  
3 occurrence of the prescribed password generation event and removing any invalid  
4 usernames from the username registry.

1     8.     The method of claim 7, further comprising:  
2         reviewing privileges associated with respective valid usernames in the  
3 username registry and resetting the privileges of the respective valid username to  
4 prescribed default settings.

1     9.     The method of claim 1, wherein generating the password includes generating  
2 the password for a prescribed username.

1     10.    The method of claim 9, wherein the prescribed username includes a service  
2 username.

1 11. The method of claim 1, wherein the dedicated application includes a point of  
2 sale application in a fuel dispensing environment.

1 12. The method of claim 1, wherein the computer system includes at least one  
2 selected from the group consisting of a stand-alone computer system and a stand-  
3 alone network of computer systems.

1 13. A computer system having a password maintenance capability comprising:  
2 an operating system including an operating system security module, an  
3 operating system data store module, and an operating system login module, said  
4 operating system operable for executing a dedicated application; and  
5 a password security generator including a password generator and a  
6 password encryptor, wherein

7 the password generator couples with said operating system for  
8 generating a password in response to an occurrence of a prescribed  
9 password generation event, the password generator providing the generated  
10 password to the operating system security module, and

11 the password encryptor couples to the password generator for  
12 producing a coded password as a function of the generated password, the  
13 password encryptor providing the coded password to the operating system  
14 data store module for use in connection with a secure operating system login  
15 access via the operating system login module.

1 14. The computer system of claim 13, wherein further the password generator  
2 provides the generated password to the operating system security module and  
3 overwrites a previously generated password.

1 15. The computer system of claim 13, wherein further the password encryptor  
2 stores the coded password and overwrites a previously stored coded password.

1 16. The computer system of claim 13, further comprising:  
2 means for displaying the stored coded password during an operating system  
3 login, wherein the displayed coded password is subject to being decoded with the  
4 use of a corresponding secure password provider, further wherein the operating  
5 system login module is responsive to an input of a correctly decoded coded  
6 password for enabling access to said operating system as a function of the  
7 generated password and the operating system security module.

1 17. The computer system of claim 13, wherein the prescribed password  
2 generation event includes at least one selected from the group consisting of a  
3 computer system power-up; a computer system re-boot; expiration of a prescribed  
4 time duration from an immediately preceding password generation event; restoration  
5 of a security level from a modified security level to a default security level, and  
6 occurrence of a secure operating system login access.

1 18. The computer system of claim 17, wherein the modified security level of a  
2 password generation event includes at least one selected from the group consisting  
3 of a change in the security level within the dedicated application, a security level  
4 override within the dedicated application, and a one-shot security access within the  
5 dedicated application.

1 19. The computer system of claim 13, further wherein said password security  
2 generator further includes means responsive to an occurrence of a prescribed  
3 password generation event for searching a username registry of the dedicated  
4 application and removing any invalid usernames from the username registry.

1 20. The computer system of claim 19, further wherein the searching means  
2 reviews privileges associated with respective valid usernames in the username  
3 registry and resets the privileges of the respective valid username to prescribed  
4 default settings.

1     21.     The computer system of claim 13, wherein the password generator generates  
2     the password for a service username.

1     22.     The computer system of claim 13, wherein the dedicated application includes  
2     a point of sale application in a fuel dispensing environment.

1     23.     The computer system of claim 13, wherein said computer system includes at  
2     least one selected from the group consisting of a stand-alone computer system and  
3     a stand-alone network of computer systems.

1     24.     A computer program product for maintaining a password in a computer  
2     system equipped with an operating system for running a dedicated application,  
3     comprising:

4             a computer program processable by a computer system for causing the  
5     computer system to:

6                 generate a password in response to an occurrence of a prescribed  
7     password generation event,

8                 provide the generated password to an operating system security  
9     module,

10                produce a coded password as a function of the generated password,

11     and

12                store the coded password for use in connection with a secure  
13     operating system login access; and

14                apparatus from which the computer program is accessible by the computer  
15     system.

1    25.    The computer program product of claim 24, wherein said computer program  
2    is further processable by the computer system for causing the computer system to:  
3            display the stored coded password during an operating system login, wherein  
4    the displayed coded password is subject to being decoded with the use of a  
5    corresponding secure password provider, further wherein the secure operating  
6    system login is responsive to an input of a correctly decoded coded password for  
7    enabling access to the operating system as a function of the generated password  
8    and the operating system security module.

1    26.    The computer program product of claim 24, wherein the prescribed password  
2    generation event includes at least one selected from the group consisting of a  
3    computer system power-up; a computer system re-boot; expiration of a prescribed  
4    time duration from an immediately preceding password generation event; restoration  
5    of a security level from a modified security level to a default security level, and  
6    occurrence of a secure operating system login access.

1    27.    The computer program product of claim 26, wherein the modified security  
2    level of a password generation event includes at least one selected from the group  
3    consisting of a change in the security level within the dedicated application, a  
4    security level override within the dedicated application, and a one-shot security  
5    access within the dedicated application.

1    28.    The computer program product of claim 24, wherein said computer program  
2    is further processable by the computer system for causing the computer system to:  
3            search a username registry of the dedicated application upon the occurrence  
4    of the prescribed password generation event and remove any invalid usernames  
5    from the username registry, and  
6            review privileges associated with respective valid usernames in the username  
7    registry and reset the privileges of the respective valid usernames to prescribed  
8    default settings.

1 29. The computer program product of claim 24, wherein generating the password  
2 includes generating the password for a service username.

1 30. The computer program product of claim 24, wherein the dedicated application  
2 includes a point of sale application in a fuel dispensing environment.

1 29. The computer program product of claim 24, wherein generating the password  
2 includes generating the password for a service username.